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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,646

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Aaron Kiser

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EXAMINER

LOWE, MICHAEL S

ART UNIT

PAPER NUMBER

3652

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,646	Applicant(s) KISER ET AL.	
	Examiner Michael Scott Lowe	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/16/07</u> . | 6) <input type="checkbox"/> Other: _____ |

Specification / Drawings

The disclosure is objected to because of the following informalities:

Paragraph [0014], 2nd to last line states 200' is a cylinder but it appears applicant meant 220'.

Paragraph [0021] states there is a power unit 210 in figure 2, but this identification number does not appear to be in any of the figures.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites the limitation "the ramp section" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8,10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tidrick (US 5,871,329) in view of Fontecchio (US 4,909,700).

Re claims 1,20, Tidrick teaches a drive apparatus for a ramp, the apparatus comprising:

a actuator (generally 31) including a fixed end and a free end; a gear rack (generally 37) coupled with the free end; a complimentary gear (generally 21) configured to cooperate with the gear rack; and a pivotal linkage (generally 24,43,44) coupled at one end with the gear and at an opposing end with the ramp section (10,43,44), and configured to affect deployment and stowage of the linkage pivoting for deploying and stowing the ramp. Tidrick does not teach the actuator being linear but Fontecchio teaches a linear actuator (generally 100) including a fixed end (generally 102) and a free end (generally 104) and a gear rack (generally 86) coupled with the free end and a complimentary gear (generally 98) connected with a pivotal link allow simple and safe (columns 1-2) loading and unloading. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have tried modifying Tidrick by Fontecchio to have a linear actuator including a fixed end and a free end and a gear rack coupled with the free end and a complimentary gear connected with a pivotal link in order to achieve the predictable result of allowing simple and safe loading and unloading.

Re claim 2, Tidrick as already modified teaches the linear actuator comprises a hydraulic cylinder including a body and a rod movable in and out from the body.

Re claim 3, Tidrick as already modified teaches the fixed end comprises the body and the free end comprises the rod.

Re claim 4, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have tried modifying Tidrick by Fontecchio to have the obvious reversal of parts with the fixed end comprises the rod and the free end comprises the body in order to achieve the predictable result of greater versatility and have equivalent results.

Re claims 5,18, Tidrick states (column 5, line 42) that the actuator can be electric, pneumatic or hydraulic and also states (column 1, line 67) an electric device is preferred. Fontecchio states numerous substitutions and modifications are envisioned. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to have tried modifying Tidrick by Fontecchio as already done with the linear actuator comprises an electrical actuator in order to achieve the predictable result of greater versatility while meeting the preferred electrical embodiment of the device.

Re claim 6, Tidrick as already modified teaches the gear rack comprises an elongate portion having a plurality of teeth for configured to mate with the complimentary gear.

Re claim 7, Tidrick as already modified teaches the elongate portion is generally parallel with the actuator.

Re claim 8, Tidrick as already modified teaches the teeth are disposed on a bottom side of the elongate side.

Re claim 10, Tidrick as already modified teaches a shaft (generally 28), wherein

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the gear and the linkage are coupled to with the shaft so that the linkage is configured to pivot about the shaft in response to linear movement by the actuator.

Re claim 11, Tidrick does not teach the shaft is fixed so that the gear and linkage rotate about the shaft, however it is well within the skill of an ordinary mechanic in the art to make the shaft fixed and fix the items keyed to each other to reduce energy expended moving the entire shaft or connect them to a surrounding tube to protect the shaft from wear. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have tried modifying Tidrick to have a fixed shaft and fix the items keyed to each other to reduce energy expended moving the entire shaft or connect them to a surrounding tube to protect the shaft from wear.

Re claim 12, Tidrick as already modified teaches the shaft configured to rotate with the gear and linkage.

Re claims 13-15,19, Tidrick as already modified teaches the linkage comprises a rigid link, curvilinear shape, and two or more rigid links coupled together.

Re claims 16,17, Tidrick teaches a drive apparatus for a ramp, the apparatus comprising:

a actuator (generally 31) including a fixed end and a free end in an enclosure (see figures); a gear rack (generally 37) coupled with the free end; a complimentary gear (generally 21) configured to cooperate with the gear rack; and a pivotal linkage (generally 24,43,44) coupled at one end with the gear and at an opposing end with the ramp section (10,43,44), and configured to affect deployment and stowage of the linkage pivoting for deploying and stowing the ramp. Tidrick does not teach the

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enclosure recessed into the floor and the actuator being linear but Fontecchio teaches a linear actuator (generally 100) including a fixed end (generally 102) and a free end (generally 104) and a gear rack (generally 86) coupled with the free end and a complimentary gear (generally 98) connected with a pivotal link and also enclosing the actuator and device and recessing it below the floor (column 1, lines 34-36,47-50) to allow simple and safe (columns 1-2) loading and unloading. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have tried modifying Tidrick by Fontecchio to have a linear actuator including a fixed end and a free end and a gear rack coupled with the free end and a complimentary gear connected with a pivotal link and also enclosing the actuator and device and recessing it below the floor in order to achieve the predictable result of allowing simple and safe loading and unloading.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Goodrich (US 6,837,670) teaches a similar device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Scott Lowe whose telephone number is (571)272-6929. The examiner can normally be reached on 6:30am-4:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on (571)272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Scott Lowe/
Examiner, Art Unit 3652